REMARKS

Claims 1-15 are cancelled without prejudice. Claims 16, 19, and 20 are amended and new claim 21 is added.

Entry of the Amendment prior to the calculation of the filing fee is respectfully requested.

Respectfully submitted,

Barry R. Lipsitz
Attorney for Applicant(s)
Registration No.: 28,637
755 Main Street
Monroe, CT 06468
(203) 459-0200

ATTORNEY DOCKET NO.: GIC-557.1
Date: August 15, 2001

Version of Amended Claims with Markings to Show Changes Made

Amended Claims

16. (Amended) A method for filtering nonlinear distortion in a signal communicated from a transmitter to a receiver via a communication path, comprising the steps of:

pre-distorting said signal at the transmitter to accentuate the signal magnitude at a fixed frequency where said nonlinear distortion resides;

communicating the pre-distorted signal to said receiver; and

filtering the pre-distorted signal at said receiver to attenuate the signal magnitude at said fixed frequency, wherein said pre-distorting of said signal at said transmitter compensates for distortion effects caused by said filtering at said receiver.

19. (Amended) Apparatus for filtering nonlinear distortion in a signal communicated from a transmitter to a receiver via a communication path, comprising:

a first filter at the transmitter to provide a pre-distorted signal having an accentuated magnitude at a

fixed frequency where said nonlinear distortion resides; and

a second filter at the receiver adapted to filter the pre-distorted signal to attenuate the signal magnitude at said fixed frequency, wherein said first filter compensates for distortion effects caused by said second filter.

20. (Amended) [Apparatus in accordance with claim 19] Apparatus for filtering nonlinear distortion in a signal communicated from a transmitter to a receiver via a communication path, comprising:

a first filter at the transmitter to provide a pre-distorted signal having an accentuated magnitude at a fixed frequency where said nonlinear distortion resides; and

a second filter at the receiver adapted to filter the pre-distorted signal to attenuate the signal magnitude at said fixed frequency, wherein:

said second filter comprises a notch filter having a Z-transform transfer function described by:

$$H(z) = \frac{1 + 2\,\mathrm{Re}(\alpha) z^{-1} + z^{-2}}{1 - 2\,\mathrm{Re}(\alpha) R \cdot z^{-1} + R^2 \cdot z^{-2}}$$

where $\alpha = \exp(2j\pi\phi)$, ϕ is the normalized center frequency of the filter, and R is a constant; and

said first filter implements the inverse transfer function $H(z)^{-1}$.

09938067.081501